

# Recycling All the Trash



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Integrated Science I and II

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John Deere Ottumwa Works

## Part I: Overview of Business

John Deere Ottumwa Works

John Deere was founded in 1837 with the invention of steel mold board plow.

John Deere Ottumwa Works has been in existence for 100 years and manufactures round balers, large square balers, mower conditioners and self-propelled windrowers.

The facility is spread out over 120 acres with over 800 employees.

## Part II: Job Specifics

●The Environmental Department is directed based on the company policy:

*“Guided by our company’s four core values – commitment, innovation, integrity and quality – we conduct our business in a manner that protects our employees, customers, communities, suppliers and the environment. This require that, wherever we do business, we will comply with the spirit and intent of all applicable environmental, health and safety laws and regulations.”*

## Part III: Introduce the Problem

Deere and Co. Eco Efficiency Goals for Waster Recycle: is to recycle 75% of total waste. At John Deere Ottumwa Works they recycle 78% of waste, and each year they strive to identify recyclable items to increase that rate

Students will define and create a one page flier with a description of the waste and a bulleted list of collection and disposal methods that they have developed from their research.

## Part IV: Background

●Content knowledge students needed is how do we recycle and what type of products can be recycled. Documents that will be provided is “Waste Stream Management Procedure.”

Pictures of trash.

Acceptable/Unacceptable Waste

List of Landfill Waste

## Part V: Business Solution

●John Deere Ottumwa Works continues to look for ways to recycle products. One avenue to decrease waste that they are looking into is Waste to Energy.

## Part VI: Student Solutions

I think that students may come up with multiple solutions for waste to be recycled. One solution that I helped look into is Waste to Energy. This method would take all landfill trash and grind it up. After being ground it would go to Davenport and used in a Cement Kiln for energy. Another method. I discovered to recycle glass was to pulverize glass for use in other products. The recycler takes and sort the glass, pulverizes it, sends it to another company and they melt glass to make other products.